

REMARKS

Introduction

Claims 1-16 were originally pending in this application. Claims 1-4 and 6-10 have been amended. Claims 11 - 16 have been withdrawn from consideration by the Examiner pursuant to 37 CFR 1.142(b). Claims 17-21 have been added. Thus, claims 1-10 and 17-21 remain in this application.

Claim Rejections

35 U.S.C. § 102(b) – Anticipation

Claims 1, 2, 5-7, and 10 were rejected under 35 § 102(b) as being anticipated by the Koseki et al. '810 patent. A claim is said to be anticipated where each and every limitation of the claim can be found in a single reference. Claims 1, 2, 6, 7, and 10 have been amended to more particularly describe the invention. Applicant respectfully submits that the invention described in independent claims 1 and 6, as amended, and newly added claim 17 are neither disclosed nor suggested by the Koseki et al. '810 patent. Accordingly, this rejection is respectfully traversed.

35 U.S.C. §103(a) – Obviousness

Claims 3, 4, 8 and 9 were rejected as being obvious, and therefore unpatentable, over the Koseki et al. '810 patent taken together with the Sanok et al. '025 patent. Claims 3, 4, 8 and 9 are dependent from independent claims 1 and 6. Independent claims 1 and 6 have been amended to more particularly describe the invention. In view of these amendments, applicant cannot agree that the invention defined in claims 3, 4, 8 and 9 would have been obvious in view of the Koseki

et al. '810 and Sanok et al. '025 patents. Accordingly, applicant respectfully traverses the Examiner's rejections.

The Prior Art

The Koseki et al. '810 Patent

The Koseki et al. '810 patent discloses a cushioning composite molded article and two processes for producing same. One method includes producing a cushioning composite molded article by employing an insert space-in-mold enlarging process and the other involves a two-layer molding space-in-mold enlarging process. In the first method, a pre-formed rigid-resin molded product 1 is placed into the mold 2 and an expandable elastomer 3 is injected to completely fill a pre-existing space within the mold 2. (Col 9, lines 5-27). Initially, the expandable elastomer 3 contacts the inner surface of the mold 2 to form a skin layer 4 that defines the visible surface material of the molded article. (Col. 9, lines 44-60). After forming the skin layer 4, a movable portion 2b of the mold 2 is drawn back or removed entirely from the mold 2 and the elastomer 3 is left to further expand with or without the confines of the movable portion 2b of the mold 2. (Figs. 1c-1f; Col. 10, lines 8-23).

The second method disclosed by the '810 patent teaches the injection of a rigid resin into the mold 2' to obtain the rigid-resin molded product 1. After forming or at least partially forming the rigid-resin product 1, the steps of the first method are subsequently employed to produce the cushioning composite molded article 5. Specifically, the expandable elastomer is injected into completely fill a pre-existing space within a mold 2' or 2 to form the skin layer 4 and then a movable portion of the mold is drawn back or removed completely to permit further expansion of the expandable elastomer.

However, the Koseki et al. '810 patent does not disclose or suggest a method of manufacturing a component of a door trim panel assembly by injecting the first molten thermoplastic material to form a structural element having a class-A surface and injecting a second molten thermoplastic material to form a soft-touch area having a class-A surface bonded to a portion of the structural element, as required by independent claim 1, as amended. The Koseki et al. '810 patent also fails to disclose or suggest the method for manufacturing a component of a door trim panel assembly by providing a mold having first and second die halves and a core disposed therebetween to define a first and second mold cavity and injecting a first molten thermoplastic material into the first mold cavity to form a structural element having a class-A surface, then injecting a second molten thermoplastic material to define a soft-touch area bonded to a portion of the structural element, as required by independent claim 6, as amended. Further, the Koseki et al. '810 patent does not disclose or suggest a method of manufacturing a door trim panel assembly by actuating a core within a mold cavity and injecting the first molten thermoplastic material into a mold cavity to form a substrate including at least one structural element where the substrate has a class-A surface, retracting the core to provide a secondary void, and then injecting a second molten thermoplastic material into the secondary void to define a soft-touch area bonded to at least a portion of the structural element where the soft-touch area has a class-A surface, as required by claim 17.

The Sanok et al. '025 Patent

The Sanok et al. '025 patent discloses a composite molded article and method of making same. Specifically, the Sanok et al. '025 patent discloses a method of making a molded interior door panel 10 having an outer skin 24, a rigid substrate 26, bolster supporting insert 28, and

relatively soft insert 30 and 32 by a mold assembly 40 including a female mold member 42 and a male mold member 44. The female mold member 42 includes clamping members 52 for securing the skin 24 thereto. The method of making the door panel 10 includes drawing the skin 24 into the female molding surface 46 and simultaneously therewith or shortly thereafter introducing a first moldable material into the mold assembly 40, between the male mold member 44 and the drawn skin 24. (Col. 4, Lines, 58-66). The first moldable material forms a rigid substrate 26 and may further form an insert, such as the bolster insert 28. The mold assembly 40 further includes a plug 64 or 64A to prevent the first moldable material from contacting some of the areas of the skin 24. A second moldable material is then introduced into the predetermined areas previously blocked by the plug 64 or 64A. The Sanok et al. '025 patent further discloses that the second moldable material forms a soft feature that corresponds with the arm rest 16, bolster 18, and energy absorbing portions 20. (Col 5, lines 49-63).

However, the Sanok et al. '025 patent does not disclose or suggest a method of manufacturing a component of a door trim panel assembly by injecting the first molten thermoplastic material to form a structural element having a class-A surface and injecting a second molten thermoplastic material to form a soft-touch area having a class-A surface bonded to a portion of the structural element, as required by independent claim 1, as amended. The Sanok et al. '025 patent also fails to disclose or suggest the method for manufacturing a component of a door trim panel assembly by providing a mold having first and second die halves and a core disposed therebetween to define a first and second mold cavity and injecting a first molten thermoplastic material into the first mold cavity to form a structural element having a class-A surface, then injecting a second molten thermoplastic material to define a soft-touch area bonded to a portion of the structural element, as required by independent claim 6, as amended.

Further, the Sanok et al. '025 patent does not disclose or suggest a method of manufacturing a door trim panel assembly by actuating a core within a mold cavity and injecting the first molten thermoplastic material into a mold cavity to form a substrate including at least one structural element where the substrate has a class-A surface, retracting the core to provide a secondary void, and then injecting a second molten thermoplastic material into the secondary void to define a soft-touch area bonded to at least a portion of the structural element where the soft-touch area has a class-A surface, as required by claim 17.

The Present Invention

In contrast to that which is disclosed in the references of record in this case, the present invention, as defined in independent claim 1, is directed toward a method of manufacturing a component of a door trim panel assembly for the interior of a vehicle. The method includes actuating a core within a mold cavity so as to partition at least one area of the mold cavity to prevent a first molten thermoplastic material from completely filling the mold cavity and then injecting the first molten thermoplastic material having a predetermined density into a mold cavity so as to fill the mold cavity. The first molten thermoplastic material forms a structural element having a class-A surface. The method further includes retracting the core within the mold cavity to provide at least one secondary void within the mold cavity and then injecting a second molten thermoplastic material having a density less than the predetermined density of the first molten thermoplastic material into the secondary void of the mold cavity. The second molten thermoplastic material forms a soft-touch area that is bonded to a portion of the structural element. The soft-touch area also has a class-A surface. Thus, the component of the door trim panel assembly includes both a rigid class-A surface and a soft-touch class-A surface.

Further, the present invention, as defined in independent claim 6, is directed toward another method of manufacturing a component of a door trim panel assembly. The method as defined in independent claim 6, includes providing a mold having first and second die halves and a core moveably supported relative to the die halves and disposed therebetween. The movable core cooperates with the first and second die halves to define a first mold and second mold cavity between the moveable core and the first and second die halves. A first molten thermoplastic material having a predetermined density is then injected into the first mold cavity so as to fill the first mold cavity. The first molten thermoplastic material forms a structural element having a class-A surface. The method further includes moving a core relative to the first and second die halves to define the second mold cavity and then injecting a second molten thermoplastic material having a density less than the predetermined density of the first molten thermoplastic material into the second mold cavity. The second molten thermoplastic material forms a soft-touch area bonded to a portion of the structural element. The soft-touch area has a class-A surface. Thus, both the structural element and the soft-touch area include class-A surfaces.

Additionally, the present invention, as defined in independent claim 17, is directed toward a method of manufacturing a door trim panel assembly for the interior of a vehicle. The method includes actuating a core within a mold cavity so as to partition at least one area of the mold cavity to prevent a first molten thermoplastic material from completely filling the mold cavity then injecting the first molten thermoplastic material having a predetermined density into the mold cavity so as to fill said mold cavity. The first molten thermoplastic material forms a substrate including at least one structural element. The substrate has a class-A surface. The method further includes retracting the core within the mold cavity to provide at least one secondary void within the mold cavity and then injecting a second molten thermoplastic material

into the secondary void. The second molten thermoplastic material includes a density less than the predetermined density of the first molten thermoplastic material to define a soft-touch area bonded to at least a portion of the structural element. The soft-touch areas have a class-A surface. Therefore, both the structural element and the soft-touch areas include class-A surfaces.

Argument

Applicant respectfully submits that the subject matter of the claims, as amended, cannot be found in a single prior art reference. In addition, a rejection based on §103 must rest on a factual basis, with the facts being interpreted without a hindsight reconstruction of the invention from the prior art. Thus, in the context of an analysis under § 103, it is not sufficient merely to identify one reference that teaches several of the limitations of a claim and another that teaches several limitations of a claim to support a rejection based on obviousness. This is because obviousness is not established by combining the basic disclosures of the prior art to produce the claimed invention absent a teaching or suggestion that the combination be made. Interconnect Planning Corp. v. Fiel, 774 F.2d 1132, 1143, 227 U.S.P.Q. (BNA) 543, 551 (Fed. Cir. 1985); In Re Corkhill, 771 F.2d 1496, 1501-02, 226 U.S.P.Q. (BNA) 1005, 1009-10 (Fed. Cir. 1985). The relevant analysis invokes a cornerstone principle of patent law:

That all elements of an invention may have been old (the normal situation), or some old and some new, or all new, is however, simply irrelevant. Virtually all inventions are combinations and virtually all are combinations of old elements. Environmental Designs v. Union Oil Co. of Cal., 713 F.2d 693, 698 (Fed. Cir. 1983) (other citations omitted).

A patentable invention . . . may result even if the inventor has, in effect, merely combined features, old in the art, for their known

purpose without producing anything beyond the results inherent in their use. American Hoist & Derek Co. v. Sowa & Sons, Inc., 220 U.S.P.Q. (BNA) 763, 771 (Fed. Cir. 1984) (emphasis in original, other citations omitted).

As the Court of Appeals for the Federal Circuit noted, “[w]hen a rejection depends upon a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references.” Ecolochem, Inc. v. Southern Calif. Edison, 56 U.S.P.Q. 2d 1065, 1073 (Fed. Cir. 2000). Here, there is simply no motivation provided in the Koseki et al. or the Sanok et al. patents to combine their teachings. Furthermore, even assuming that such a motivation existed, a combination of these references would not result in the methods of manufacturing a door trim panel assembly or component of a door trim panel assembly of the type described in independent claims 1, 6, and 17, as amended.

There is a fundamental axiom in patent law that if a reference must be reconstructed or rearranged to change its operation to meet the applicant’s claim, that modification of the reference is inappropriate and cannot stand. The Koseki et al. ‘810 patent is the base reference on which the rejection under § 103 is founded. However, this patent teaches employing an expandable elastomer and advocates injecting the elastomer to expand within a preexisting space of a mold cavity containing a pre-formed rigid substrate and then subsequently creating another space by moving a portion of the mold away to permit the elastomer to further expand. Further, the method disclosed by Koseki et al. creates a surface material (i.e. a class-A surface) only within the expandable elastomer, *which provides a component having only one type of class-A surface*. Moreover, the Koseki et al. ‘810 patent discloses that the molded article is merely a part of an automotive trim panel, which requires secondary handling and subsequent

manufacturing that is well known in the art and was distinguished from the present invention in the background section of this patent application.

The Sanok et al. '025 patent does not make up for the deficiencies in the Koseki et al. '810 patent. The Sanok et al. '025 patent discloses a method of making a composite molded article that includes injecting a first moldable material into a mold cavity having a plug or plugs to prevent first material from completely filling the mold cavity and injecting a second moldable material into the mold cavity after removal of the plug or plugs, but does not teach or suggest that the first material provides a structural element to the second material. Further, the Sanok et al. '025 patent teaches a manufacturing method that employs a separate material to serve as the outer skin (i.e. class-A surface) of the composite molded article. To the contrary, method of the present invention produces *a class-A surface on both the substrate and the soft-touch area*. The Sanok et al. '025 patent discloses a method of manufacturing a composite molded article that is well known in the art and was distinguished from the present invention in the background section of this patent application.

It is respectfully submitted that the Koseki et al. and the Sanok et al. patent references skirt around, but do not suggest the claimed invention *as a whole*. See Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1383 (Fed. Cir. 1986). Further, it is respectfully submitted that one must pick and choose elements from the dissimilar devices and methods disclosed in the Koseki et al. and the Sanok et al. patents and combine these elements by restructuring them, using hindsight and the applicant's own disclosure, to conclude that the claimed methods are obvious. Applicant respectfully submits that this would be improper in view of the disclosures of the prior art. Thus, applicant respectfully submits that the disclosures

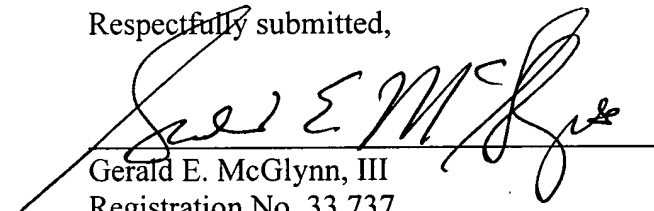
of each of these references would have to be improperly modified to meet the limitations of independent claims 1, 6 and 17.

Claims 2-5, 7-10, and 18-21 are all ultimately dependent upon independent claims 1, 6, and 17, and add further perfecting limitations. As such, the prior art references do not suggest the subject invention. However, even if they did, they could only be applied through hindsight after restructuring the disclosure of the prior art in view of applicant's invention. A rearrangement of the teachings described in these references to derive applicant's invention would, in and of itself, be an invention.

Conclusion

In view of the above, applicant respectfully submits that the claims, as amended, clearly distinguish over the prior art and are therefore allowable. Accordingly, applicant respectfully solicits the allowance of the claims pending in this case.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gerald E. McGlynn, III", is written over a horizontal line.

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